

REMARKS

Claims 1-2, 4-7 and 8-16 are pending in this application. No claim has been amended and, as a result, entry and consideration of this response are respectfully requested.

The Examiner acknowledges that Applicants' amendments to claims 1-2, 4-7 and 8-9 are sufficient to overcome the §102 and §103 rejections. However, the Examiner has instituted a new rejection of presumably all pending claims 1-2, 4-6 and 8-16 under 35 U.S.C. §103(a) as being unpatentable over Flores, U.S. Patent No. 6,073,109, as modified to incorporate selected features from the newly cited reference Reid et al., U.S. Patent No. 5,892,449 for reasons stated on pages 3-14 of the final Office action. Basically, the Examiner asserts that Flores '109, as a primary reference, discloses essentially all the claimed elements, except for the detection of an occurrence of an abnormal status change in one of the plurality of related business processes which is allegedly disclosed on column 6, lines 45-59 of Reid '449, as a secondary reference.

However, Applicants respectfully note that the Examiner's assertions are incorrect and, therefore, traverse the rejection for reasons discussed herein below.

The present invention is directed to a workflow management method and a workflow management system including a plurality of client computers and a method as shown in FIGs. 1, 11 and 15 in which some of related business processes in a business flow (business procedure) may be executed simultaneously by the plurality of client computers. The purpose of the present invention is to notify clients of the occurrence of an abnormal status change (discontinuance) detected in one of a plurality of interdependent business processes which are executed simultaneously

so as to avoid execution unnecessary or useless business processes as described on page 3 of the specification and the summary of the invention.

Independent claim 1, for example, defines a workflow control method in a workflow system connected to a plurality of client computers for carrying out business procedures each comprising a plurality of related business processes, and at least one of the business procedures being allowed to execute some of the business processes simultaneously comprising the steps of:

detecting occurrence of abnormal status change in one of a plurality of related business processes;

selecting at least one user who is in charge of a business interdependent to the business process in which said abnormal status change was detected; and

notifying a client computer corresponding to said selected user of the occurrence of abnormality in the related business process.

As defined by Applicants' independent claim 1, when one of a plurality of interdependent business processes is discontinued or canceled while some of the plurality of interdependent business processes are being executed simultaneously, useless business processes can advantageously be avoided or prevented by way of informing the relevant users of the occurrence of the discontinuance or interruption detected in the related business process, see lines 10-20, page 17 of the specification.

In contrast to Applicants' claim 1, Flores '109 discloses a computerized method and system as shown in FIG. 2 for managing business processes using a number of workflows linked together as shown in FIG. 1. The purpose of the Flores workflow system is to 1) notify the user that s/he has a step to begin or to complete the workflow; (2) provide the user with the proper tools to complete a task; (3) provide

the user with the proper information to complete a task; (4) allow the user to see where a task fits in the overall process; (5) manage proper reminders, alerts, and follow-ups to keep the processing moving; (6) automate standard procedures; (7) integrate with the organization's existing business systems; (8) provide application program interfaces that allow developers to develop applications that are workflow-enabled.

According to Flores '109, a follow-up manager is utilized to perform those functions as described, including, for example, notifying the user that he or she has a step to begin or to complete, and issuing reminders, alerts and follow-ups with respect to an overdue commitment (delayed task) in order to hasten the user to complete the delayed task, see column 13, lines 39-53.

However, Flores' follow-up manager does **not** have a function of issuing a notification for informing a user that one of his tasks (i.e., business processes) should be interrupted because its interdependent process has been already discontinued.

In addition, Flores '109 does **not** intend to perform a plurality of interdependent business processes simultaneously in a business procedure and to prevent relevant users from executing useless business processes when one of related business processes is discontinued or interrupted by a relevant user.

Nevertheless, on pages 3-4 of the final Office action, the Examiner cites column 4, lines 30-34 and column 13, lines 39-67 of Flores '109 for disclosing the feature of "notifying a client computer corresponding to said selected user of the occurrence of abnormality in the related business process" as defined in Applicants' claim 1. However, the cited portion of Flores '109 discloses any function of issuing a notification to inform a user that one of his/her tasks (business processes) should be

interrupted because its interdependent process has been already discontinued as defined in Applicants' independent claim 1. In fact, the cited column 13, lines 39-67 of Flores '109 only describes the follow-up manager as being used to determine if there is a delayed transaction. No disclosure of any detection of an abnormal status change (discontinuance) in the business process as alleged by the Examiner.

On page 15 of the final Office action, the Examiner further cites column 4, lines 30-34 and 57-63 of Flores '109 for disclosing "client notification when the status is changed." The Examiner acknowledges that Flores '109 does not disclose "an abnormal status change" but asserts that Flores '109 discloses "the observer to be a type of client notification" and that "the observer is informed, or detects, the acts of the workflow, these workflow acts include status change". The Examiner then cites column 2, lines 46-59 of Reid '449 for suggesting the use of "an abnormal occurrence" in order to arrive at Applicants' claim 1.

However, the Examiner's assertion is incorrect. An "observer" as expressly defined on column 4, lines 30-35 of Flores '109 as "a role in a workflow who cannot perform acts in the workflow, but is informed of acts in the workflow, and has access to the information and data associated with the workflow." Based on this definition, the observer as disclosed by Flores '109 does **not** correspond to Applicants' claimed "selected user who is in charge of a business process" as expressly defined in Applicants' claim 1.

As secondary evidence of "detecting an occurrence of an abnormal status change in one of the plurality of related business processes" allegedly disclosed by Reid '449, Applicants respectfully submit that Reid '449 only relates to an electrical distribution system for controlling and monitoring of remotely controlled circuit breakers, and this system has **no** relation to a workflow system as disclosed by

Flores '109.

Specifically, as shown in FIG. 3, column 6, lines 25-59, Reid '449 sends a read status message and a switch command message from a microprocessor 72 of an interface module 24 to an interface driver board 34, which includes a gate array 60 and being indicated as an area surrounded by a dot line in Fig.3. (The microprocessor 72 receives the above commands from a controller 32).

In response to these messages, the interface driver board 34 reads the status of a circuit breaker and returns the results to the microprocessor 72. When a switch command message is issued, the interface driver board 34 switches a designated circuit breaker and after that, reads the status of the circuit breaker. The microprocessor 72 uses the returned information to ascertain whether the selected circuit board is in a correct state or not. If the circuit breaker is in a wrong status, the microprocessor 72 attempts to correct the problem (perhaps, retransmits the same command again in response to a controller command from the controller 32).

Column 2, lines 46-59 of Reid '449 as cited by the Examiner only describes that "if a controller command is retransmitted multiple times and unexpected status is received from the gate array 60, the controller 32 may be programmed to display the error and may discontinue transmitting the command". In this case, an abnormal status change is detected.

However, this type of abnormal status change only refers to the type of machine trouble. In particular, Reid '449 refers to display an error message on a monitor (keyboard and display 55) when one of circuit breakers is out of order. According to Reid '449, every abnormal status change (machine trouble) is notified (displayed) to the same station (controller 32). However, Reid '449 fails to suggest the idea of selective alarming an occurrence of abnormal status change (user

actions such as discontinuance or interruption of a business process) occurred in a normal machine (client computer) to relevant users in charge of the related business process. Therefore, if one skilled in the art were to incorporate the teachings of Reid '499 into the workflow process of Flores '109 in the manner suggested by the Examiner, the proposed combination would be a workflow system having a function of displaying an error message on the observer display thereby to notify a system manager of an abnormal client computer in which a hardware/software trouble has occurred.

On page 4 of the final Office action, the Examiner also refers to column 13, lines 39-67 of Flores '109, and asserts that "the follow up manager notifies the transaction manager by sending an e-mail, executing a script, or other defined actions". However, the follow up e-mail as described by Flores '109 must be destined to a user having an overdue commitment or the observer having a duty of management on the workflow jobs. In any event, Flores '109 does not disclose or suggest the idea of "notifying a client computer corresponding to a selected user of the occurrence of a status change (abnormality) in the related business process" as expressly defined in Applicants' claim 1.

With respect to independent claims 5 and 12, the Examiner has admitted that Flores '109, as a primary reference, does not disclose the use of a status watch for detecting a change in a business process being executed. However, the Examiner cites column 6, lines 45-59 of Reid '449, as a secondary reference, for disclosing the missing feature from Flores '109, that is, the status watching for detecting discontinuous or delay in the business process in order to arrive at Applicants' independent claims 5 and 12. Again, the reference to Reid '449 is misplaced.

Neither Flores '109 nor Reid '449, whether taken in combination or individually, discloses the features of Applicants' claims 5 and 12.

Independent claims 5 and 12 define a workflow system connected to a plurality of client computers for executing business procedures each including a plurality of business processes, at least one of the business procedures being allowed to execute some of the business processes simultaneously, as comprising, *inter alia*:

a **status watcher** for detecting a status change in a business process being executed, including an occurrence of an abnormal status change in the business process;

a **workflow engine** connected to the status watcher, for controlling the execution of each of the business procedures based on the status change detected by the status watcher and predetermined business procedure definitions; and

a **notifier** for notifying at least one of said client computers of the occurrence of the abnormal status change detected by said status watcher, the user of the client computer being in charge of a business process interdependent to a business process in which the abnormal status change was detected.

As defined by Applicants' independent claims 5 and 12, when one of a plurality of interdependent business processes is discontinued or canceled (abnormal status change) while some of the plurality of interdependent business processes are being executed simultaneously, it is possible to prevent relevant users from executing useless business processes by way of a notifier for notifying the relevant users of the occurrence of the discontinuance or interruption detected in the related business process.

In contrast to Applicants' claims 5 and 12, Flores '109, as a primary reference, simply describes a workflow system which manages business processes made up of many workflows that are linked together as described previously. There is **no** disclosure of any status watcher for detecting a status change in a business process

being executed, including an occurrence of an abnormal status change in the business process, nor any notifier used for notifying at least one of the client computers of the occurrence of the abnormal status change detected by the status watcher.

Nevertheless, the Examiner argues that an observer as described by Flores '109 corresponds to Applicants' claimed "status watcher" as "they both detect status change in the business process executed" and that "it would have been obvious for Flores '109 to notify the user of an abnormal (or discontinuous) status change" based on the teachings of Reid '449.

As previously explained, the observer as described by Flores '109 does **not** correspond to Applicants' claimed "status watcher" as the "status watcher" relates to the "notifier for notifying at least one of the client computers of the occurrence of the abnormal status change detected by the status watcher, the user of the client being in charge of a business process interdependent to a business process in which the abnormal status change was detected." Reid '449, as a secondary reference, does **not** remedy the noted deficiencies of Flores '109 for the same reasons discussed above.

Again, the law under 35 U.S.C. §103 is well settled that "obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination." ACS Hospital System, Inc v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). The Examiner must point to something in the prior art that suggests in some way a modification of a particular reference or a combination of references in order to arrive at Applicants' claimed invention. Absent such a showing, the Examiner has improperly used Applicants' disclosure as an

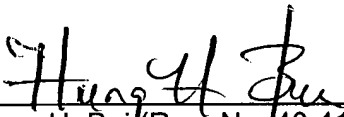
instruction book on how to reconstruct to the prior art to arrive at Applicants' claimed invention.

In the present situation, both Flores >109 and Reid '449 fail to disclose and suggest Applicants' claims 1-2, 4-7 and 8-16. Therefore, Applicants respectfully request that the rejection of claims 1-2, 4-7 and 8-16 be withdrawn.

In view of the foregoing amendments, arguments and remarks, all claims are deemed to be allowable and this application is believed to be in condition to be passed to issue. Should any questions remain unresolved, the Examiner is requested to telephone Applicants' attorney at the Washington DC area office at (703) 312-6600.

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Respectfully submitted,
ANTONELLI, TERRY, STOUT & KRAUS, LLP



Hung H. Bui (Reg. No. 40,415)
Attorney for Applicant(s)

HHB:srm
(703) 312-6600